

Critters and Critter Control

*“Though snails are exceedingly slow,
There is one thing I'd like to know.
If I out run 'em round the yard,
How come they beat me to the chard?”*
~ Allen Klein

Remember, healthy plants will have fewer pest problems. Keeping soils fertile and irrigating adequately will also prevent many pest problems from occurring.

Follow these steps to ecologically sound pest control:

Start by monitoring.

To keep pest problems to a minimum, start by regular monitoring. Insect and disease problems are easiest to fix if caught early. Check plants for pests like aphids, scale or the larval stages of several pest species. Look out for leaf spots that can be a sign of fungal or bacterial disease. When you have identified a pest problem try to find out what is causing the damage. This can be an exciting investigative activity for your students. Decide whether the damage is significant enough to warrant action.

In an instructional garden, choose to tolerate some plant damage. Observing species interactions or the unchecked impact of a pest can be as important as harvesting a crop part of the learning process for your students. Many plant pests have natural predators, and if you remove the pests, your students will never get to see the predators in action.

Discourage excess moisture on foliage.

Most fungal and bacterial diseases can infect plant surfaces only if there is moisture present. In regions where the growing season is humid, give plants enough space so air can circulate freely. Water in the morning hours, as the water does not evaporate as quickly. Plants such as tomatoes, potatoes, squash, and cucumbers should not be watered from above. This is less of a concern in arid climates.

Look for disease and pest resistant varieties.

Many crop varieties are less susceptible to disease and pest problems. Information on resistance is generally available in the variety descriptions in catalogs and on seed packets.

Choose appropriate crops for your region and season.

Many plants will succumb to pest attack if they are grown in the wrong climate zone or during the wrong time of year. You can avoid pest problems down the road if you start by doing your research and making careful choices.

Clean up your garden.

Diseases and pests can remain on infected and dead plant material where they can survive until attacking another host crop. Remove infected plant leaves, keep weeds to a minimum, and clean up the garden regularly.

Encourage beneficial organisms.

Make the garden inviting to beneficial species such as ladybugs, wasps, lacewings, and birds that are known to feed upon pests. Plant appropriate habitat species, choosing perennials that have consecutive flowering periods and limiting the use of insecticides that can kill beneficials as well as pests. Adding a birdhouse or a water feature, such as a fountain or bath, can also help to attract birds.

Practice crop rotations.

Pests and diseases that affect certain crops build up in the soil if the same crop is grown in the same location repeatedly. By planting different crops in a location on a three-year cycle, you can avoid many problems.

Use non-chemical pest control methods and/or install barriers to pests.

There are many fun and effective non-chemical pest control methods that are particularly appropriate in school garden programs.

- Hand-picking pests is a method that is rarely viable in commercial operations but effective when you have 20 children with bright eyes and small fingers.
- Row covers can keep flying pests off an entire bed.
- Sticky barriers can provide a barrier to ants.
- A board laid on the soil is good for collecting snails and slugs. Turn it over in the morning and pick off the mollusks that have gathered there.
- A short section of old hose or rolled up newspaper will attract nighttime marauders like earwigs.
- A jar lid, saucer or other shallow container set in the soil and filled with beer may attract and then drown pests, especially earwigs and slugs.
- Mix one tablespoon of liquid dishwashing soap with a quart of water and spray the soapy solution on plants. Good for aphids and whiteflies.

And what about those vertebrate pests?

Often the most damaging pests to our gardens are rabbits, squirrels and gophers. These can be very difficult to deal with. When properly secured, row cover is an effective barrier to non-burrowing vertebrates. Gophers can be kept out of beds lined underground with gopher baskets or hardware cloth (screen). Most traps and poisons are potentially dangerous to children and other species and must be used with discretion. Check regulations at your school and district to find out what is allowed.

Additional Resources

- Integrated Pest Management. Extensive site on pest control, great photos. <http://www.ipm.ucdavis.edu/PMG/menu.homegarden.html>
- Ecology Action. Look for fact sheets and other resources for Integrated Pest Management Program. <http://www.ecoact.org/Programs/index.htm>